AMENDMENTS TO THE CLAIMS

Claim 1. (Currently amended) A method of ~~ameliorating~~ treating a dermatological condition in the skin of a mammal, comprising:

administering a composition comprising a substituted fullerene to at least a portion of the skin of the mammal afflicted with the dermatological condition or potentially afflicted with the dermatological condition, wherein the substituted fullerene comprises a fullerene core (Cn) and at least one of:

(i) from 1 to 3 (>CX^1X^2) groups bonded to the fullerene core;

(ii) from 1 to 18 -X^3 groups bonded to the fullerene core;

(iii) from 1 to 6 -X^4- groups bonded to the fullerene core; or

(iv) from 1 to 6 dendrons bonded to the fullerene core,

wherein the composition contains from about 0.01 wt% to about 5 wt% substituted fullerene and wherein the composition further comprises at least one carrier selected from the group consisting of dimethicone, water, urea, mineral oil, sodium lactate, polyglyceryl-3 diisostearate, ceresin, glycerin, octyldodecanol, polyglyceryl-2 dipolyhydroxystearate, isopropyl stearate, panthenol, magnesium sulfate, bisabolol, lactic acid, lanolin alcohol, and benzyl alcohol.

Claim 2. (Original) The method of claim 1, wherein the substituted fullerene comprises a fullerene core (Cn) having 60 carbon atoms or 70 carbon atoms.

Claim 3. (Original) The method of claim 1, wherein each X^1 and X^2 is independently selected from -H, -COOH, -$CONH_2$, -CONHR', -CONR'$_2$, -COOR', -CHO, -$(CH_2)_d$OH, -R, -RCOOH, -$RCONH_2$, -RCONHR', -RCONR'$_2$, -RCOOR', -RCHO, -R$(CH_2)_d$OH, or a salt thereof, wherein each R is a hydrocarbon moiety having from 1 to about 6 carbon atoms and each R' is independently (i) a hydrocarbon moiety having from 1 to about 6 carbon atoms or (ii) a hydrocarbon moiety having from 1 to about 6 carbon atoms and a terminal carboxylic acid, and d is an integer from 0 to about 20.

Claim 4. (Original) The method of claim 1, wherein the substituted fullerene comprises C_{60} and 3 ($>CX^1X^2$) groups in the C3 orientation or the D3 orientation.

Claim 5. (Withdrawn) The method of claim 1, wherein the substituted fullerene comprises C_{60} and 2 ($>CX^1X^2$) groups in the trans-2 orientation, the trans-3 orientation, the e orientation, or the cis-2 orientation.

Claim 6. (Withdrawn) The method of claim 1, wherein the substituted fullerene comprises C_{70} and 2 ($>CX^1X^2$) groups in the bis orientation.

Claim 7. (Withdrawn) The method of claim 1, wherein the substituted fullerene has the structure shown in Figure 8B.

Claim 8. (Withdrawn) The method of claim 1, wherein the substituted fullerene comprises from 1 to about 6 $-X^3$ groups and each $-X^3$ group is independently selected from:

$-N^+(R^2)(R^3)(R^4)$, wherein R^2, R^3, and R^4 are independently -H or $-(CH_2)_d-CH_3$, wherein d is an integer from 0 to about 20;

$-N(R^2)(R^3)(R^8)$, wherein R^2 and R^3 are independently -H or $-(CH_2)_d-CH_3$, wherein d is an integer from 0 to about 20, and each R^8 is independently $-(CH_2)_f-SO_3^-$, $-(CH_2)_f-PO_4^-$, or $-(CH_2)_f-COO^-$, wherein f is an integer from 1 to about 20;

$-C(R^5)(R^6)(R^7)$, wherein R^5, R^6, and R^7 are independently -COOH, -H, -CH(=O), or $-CH_2OH$;

$-C(R^2)(R^3)(R^8)$, wherein R^2 and R^3 are independently -H or $-(CH_2)_d-CH_3$, wherein d is an integer from 0 to about 20, and each R^8 is independently $-(CH_2)_f-SO_3^-$, $-(CH_2)_f-PO_4^-$, or $-(CH_2)_f-COO^-$, wherein f is an integer from 1 to about 20;

$-(CH_2)_e-COOH$, $-(CH_2)_e-CONH_2$, $-(CH_2)_e-COOR'$, or a peptidyl moiety, wherein e is an integer from 1 to about 6 and each R' is independently (i) a hydrocarbon moiety having from 1 to about 6 carbon atoms or (ii) a hydrocarbon moiety having from 1 to about 6 carbon atoms and a terminal carboxylic acid; or

an aromatic heterocyclic moiety containing a cationic nitrogen.

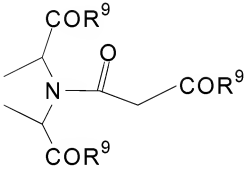
Claim 9. (Withdrawn) The method of claim 1, wherein each -X^4- group is independently

, wherein R^2 is independently -H or -$(CH_2)_d$-CH_3, wherein d is an integer from 0 to about 20, and R^8 is independently -$(CH_2)_f$-SO_3^-, -$(CH_2)_f$-PO_4^-, or -$(CH_2)_f$-COO^-, wherein f is an integer from 1 to about 20.

Claim 10. (Withdrawn) The method of claim 1, wherein each -X^4- group is independently

, wherein each R^2 and R^3 is independently -H or -$(CH_2)_d$-CH_3, wherein d is an integer from 0 to about 20.

Claim 11. (Withdrawn) The method of claim 1, wherein each -X^4- group is independently



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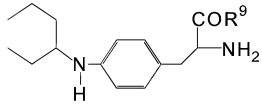

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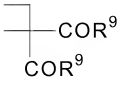

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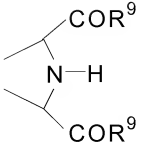

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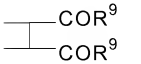

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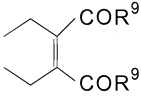

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wherein each R^2 is independently -H or $-(CH_2)_d-CH_3$, wherein d is an integer from 0 to about 20, and each R^9 is independently -H, -OH, -OR', $-NH_2$, -NHR', $-NHR'_2$, or $-(CH_2)_dOH$, wherein each R' is independently (i) a hydrocarbon moiety having from 1 to about 6 carbon atoms or (ii) a hydrocarbon moiety having from 1 to about 6 carbon atoms and a terminal carboxylic acid.

Claim 12. (Withdrawn) The method of claim 1, wherein the substituted fullerene has a structure selected from Figures 9A-9G.

Claim 13. (Withdrawn) The method of claim 1, wherein the substituted fullerene comprises an endohedral metal.

Claim 14. (Original) The method of claim 1, wherein the composition further comprises an amphiphilic fullerene having the formula $(B)_b-C_n-(A)_a$, wherein C_n is a fullerene moiety comprising n carbon atoms, wherein n is an integer and $60 \leq n \leq 240$; B is an organic moiety comprising from 1 to about 40 polar headgroup moieties; b is an integer and $1 \leq b \leq 5$; each B is covalently bonded to the C_n through 1 or 2 carbon-carbon, carbon-oxygen, or carbon-nitrogen bonds; A is an organic moiety comprising a terminus proximal to the C_n and one or more termini

distal to the C_n, wherein the termini distal to the C_n each comprise $-C_xH_y$, wherein x is an integer and $8 \leq x \leq 24$, and y is an integer and $1 \leq y \leq 2x+1$; a is an integer, $1 \leq a \leq 5$; $2 \leq b+a \leq 6$; and each A is covalently bonded to the C_n through 1 or 2 carbon-carbon, carbon-oxygen, or carbon-nitrogen bonds.

Claim 15. (Original) The method of claim 1, wherein the dermatological condition is sunburn, aging, psoriasis, acne, or smoker's face.

Claims 16-25. (Cancelled)